

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF LED COUNTDOWN PEDESTRIAN SIGNAL HEADS, APS PUSHBUTTONS AND SIGNS AND SIDEWALK RAMP RECONSTRUCTION AT THE INTERSECTION OF MD 212 (POWDER MILL ROAD) AND AMMENDALE ROAD IN PRINCE GEORGES COUNTY. MD 212 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THIS INTERSECTION CURRENTLY OPERATES IN A NEMA EIGHT-PHASE FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE LEFT TURN PHASES FOR NORTHBOUND AND EASTBOUND MD 212, EXCLUSIVE LEFT TURN PHASES FOR AMMENDALE ROAD AND OLD GUNPOWDER ROAD AND ALTERNATE PEDESTRIAN PHASES FOR THE EAST AND WEST LEGS OF THE INTERSECTION. NO PHASE CHANGES ARE PROPOSED AS PART OF THIS PROJECT.

CONTROLLER REQUIREMENTS

THE EXISTING FULL-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC SIGNAL CONTROLLER HOUSED IN A BASE MOUNTED CABINET WILL BE USED. AN APS CENTRAL CONTROL UNIT WILL BE SUPPLIED BY THE CONTRACTOR AND INSTALLED BY SHA.

CONTACT PERSONS FOR DISTRICT # 3 ARE AS FOLLOWS:

MR. BRIAN YOUNG  
ASSISTANT DISTRICT ENGINEER-TRAFFIC  
PHONE: (301) 513-7358

MR. AUGIE REBISH  
UTILITY ENGINEER  
PHONE: (301) 513-7350

MR. WAYNE A. MOWDY  
ASSISTANT DISTRICT ENGINEER-MAINTENANCE  
PHONE: (301) 513-7304

CONTACT PERSONS FOR OOTS ARE AS FOLLOWS:

MR. RICHARD L. DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS  
DIVISION  
PHONE: (410) 787-7630

MR. ROBERT SNYDER  
ASSISTANT DIVISION CHIEF  
TRAFFIC OPERATIONS  
410-787-7630

MR. ED RODENHIZER  
CHIEF, SIGNAL OPERATIONS  
410-787-7650

MR. EUGENE BAILEY  
CHIEF, SIGN OPERATIONS  
410-787-7676

THE POWER COMPANY IS:

PEPCO  
ROCKVILLE SERVICE CENTER  
201 WEST GUDE DRIVE  
ROCKVILLE, MD 20850  
301-670-8700

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA.

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
9571	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGNS CONSISTING OF:		
	4 EA R10-3(1) (9"x15") - POWDER MILL RD		
	2 EA R10-3(1) (9"x15") - OLD GUNPOWDER RD		
	2 EA R10-3(1) (9"x15") - AMMENDALE RD		
	1 EA SHIELD ASSEMBLY (48" X 75") - M3-2, M1-5(1), M6-1		
	1 EA SHIELD ASSEMBLY (30" X 51") - M3-4, M1-5(1), M6-1		

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1001	MAINTENANCE OF TRAFFIC	EA	1
2001	CLASS II EXCAVATION	CY	55
2002	TEST PIT EXCAVATION	CY	4
6002	F&I STD. TYPE A COMBINATION CURB AND GUTTER 12" GUTTERPAN 8" DEPTH	LF	208
6004	F&I 4" CONCRETE SIDEWALK	SF	1144
6005	F&I DETECTABLE WARNING SURFACE FOR CURB RAMPS	SF	74
8002	F&I 2 WIRE CENTRAL CONTROL UNIT	EA	1
8007	F&I AUDIBLE / TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS	EA	8
8014	F&I LED 16" COUNTDOWN PEDESTRIAN SIGNAL HEADS	EA	8
8021	F&I PEDESTAL POLE (ANY SIZE)	EA	6
* 8022	REMOVE & DISPOSE MATERIAL & EQUIPMENT PER ASSIGNMENT	EA	1
8030	DISCONNECT, PULL BACK AND RE-ROUTE CABLES	LF	40
8034	F&I SCHEDULE 80 RIGID PVC CONDUIT UP TO 4" - TRENCHED	LF	125
8038	NO.6 AWG STRANDED BARE COPPER GROUND WIRE	LF	90
8046	INSTALL OVERHEAD SIGN	SF	44
8054	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE	EA	6
8056	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	1685
8058	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	100
**	RELOCATE EXISTING PEDESTAL POLE (INCLUDES CONCRETE)	EA	1

\* REMOVE AND DISPOSE ITEM COVERS BOTH, THIS INTERSECTION AS WELL AS THE INTERSECTION OF MD 212 @ MONTGOMERY RD.

\*\* TO BE PAID AS ITEM NO. 8012 INSTALL PED POLE.

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND RETURNED TO SHA.

ALL MATERIALS AND EQUIPMENT REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PHASING CHART

NO PHASE CHANGE

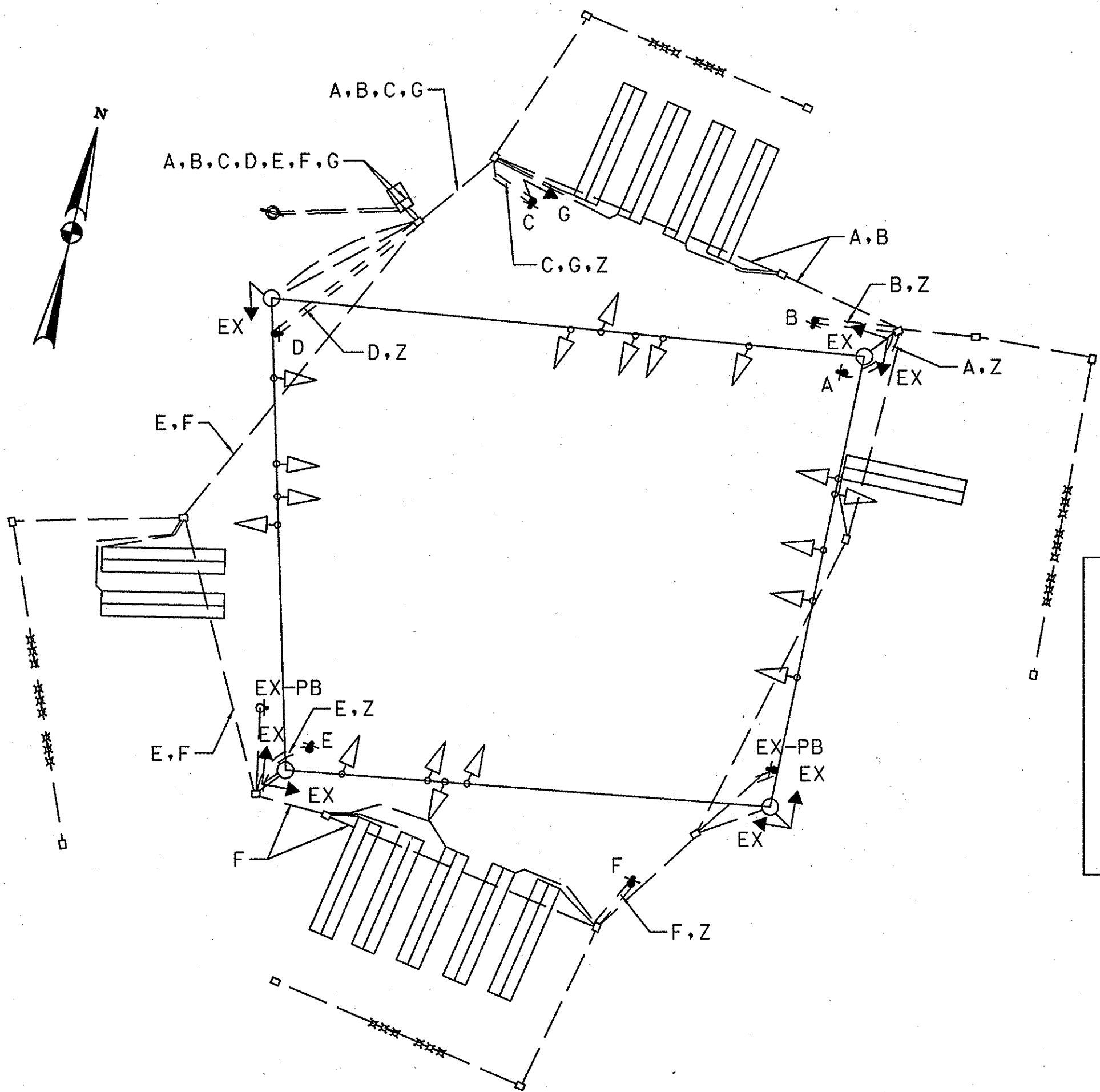
GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABELING EACH CABLE.
3. ALL UNUSED CABLE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
4. UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "MISS UTILITY" PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
5. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
6. ACCESSIBLE PEDESTRIAN CONTROL EQUIPMENT SHALL BE DELIVERED TO THE SHA SIGNAL SHOP FOR TESTING AND PROGRAMMING PRIOR TO INSTALLATION. CONTACT MR. EDWARD RODENHIZER AT 410-787-7652 TO COORDINATE.
7. LOCATION OF ACCESSIBLE PEDESTRIAN PUSHBUTTONS MUST MEET THE LOCATION REQUIREMENTS OF THE MUTCD, SECTION 4E-09 AND FIGURE 4E-2 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNAL: GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL THE CONFLICT HAS BEEN RESOLVED. IF NEEDED, A DESIGN WAIVER SHALL BE OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
8. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHERE CHAIR REACHING LESS THAN 18" FROM A 60" X 60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
9. THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
10. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
11. TRAFFIC SIGNAL CONTRACTOR SHALL COORDINATE THE INSTALLATION OF SIGNAL EQUIPMENT WITH THE SIDEWALK CONTRACTOR.

CONSTRUCTION DETAILS

- A. INSTALL 10 FT. BREAKAWAY PEDESTAL POLE WITH LED PEDESTRIAN COUNTDOWN SIGNAL HEAD, APS PUSHBUTTON AND SIGN (ORIENT PARALLEL TO CROSSWALK). NOTE: INSTALL 1-3 IN. CONDUIT BEND IN POLE BASE
- B. INSTALL 5 FT. BREAKAWAY PEDESTAL POLE WITH APS PUSHBUTTON AND SIGN (ORIENT PARALLEL TO CROSSWALK). NOTE: INSTALL 1-3 IN. CONDUIT BEND IN POLE BASE
- C. REMOVE EXISTING PUSHBUTTON AND SIGN FROM PEDESTAL POLE AND INSTALL APS PUSHBUTTON AND SIGN (ORIENT PARALLEL TO CROSSWALK); TIE INTO EXISTING CABLES
- D. REMOVE EXISTING PEDESTRIAN SIGNAL HEADS FROM SIGNAL POLE AND INSTALL NEW LED COUNTDOWN PEDESTRIAN SIGNAL HEADS; TIE INTO EXISTING CABLES
- E. INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED; INTERCEPT AND TIE INTO EXISTING CONDUIT USING A CONDUIT COUPLING
- F. INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
- G. USE EXISTING CABINET
- H. USE EXISTING CONDUIT
- J. USE EXISTING HANDHOLE
- K. REMOVE EXISTING PEDESTAL POLE AND FOUNDATION TO 1' BELOW GRADE; POLE SHALL BE REUSED IN THIS CONTRACT
- L. REMOVE EXISTING PEDESTAL POLE AND FOUNDATION TO 1' BELOW GRADE; CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF POLE
- M. USE EXISTING HANDHOLE; PULL BACK EXISTING 2-CONDUCTOR CABLE FROM EXISTING PEDESTAL POLE (PUSH-BUTTON #33) AND RE-ROUTE TO PROPOSED PEDESTAL POLE (PUSH-BUTTON #60)
- N. INSTALL RELOCATED 10 FT. BREAKAWAY PEDESTAL POLE WITH LED PEDESTRIAN COUNTDOWN SIGNAL HEAD, APS PUSHBUTTON AND SIGN (ORIENT PARALLEL TO CROSSWALK). NOTE: INSTALL 1-3 IN. CONDUIT BEND IN POLE BASE

WIRING DIAGRAM



WIRING KEY	
A,B,C,	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
D,E,F	EXISTING 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
EX-PB	EXISTING 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
EX	EXISTING 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
G	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
Z	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

<b>SHA</b> STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION MD 212 (POWDER MILL ROAD) AT AMMENDALE ROAD BELTSVILLE, MARYLAND	
GENERAL INFORMATION SHEET	
SCALE NA	ADVERTISED DATE CONTRACT NO. AT9135185
DESIGNED BY TC	COUNTY PRINCE GEORGE'S
DRAWN BY TC	LOGMILE 16021208.60
CHECKED BY D. EBY	TMS NO. 1914
F.A.P. NO.	TOD NO.
TS NO. 3061A-GI	DRAWING OF SHEET NO. 2 OF 9

**RK & K**  
RUMMEL, KLEPPER  
& KAHL, LLP  
CONSULTING ENGINEERS  
81 MOSHER STREET  
BALTIMORE, MARYLAND 21217  
TEL: (410) 728-2900 FAX: (410) 383-3270

PLOTTED: Monday, November 19, 2007 at 3:25:43 PM  
FILE: GI-MD212@Ammdale.dgn